

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-12 (Canceled)

Claim 13 (Currently Amended): A method of controlling communication over a bus communication system in which a plurality of line concentrators, each having line concentrating and switching functions, are connected to a host device, ~~and are operated under a Universal Serial Bus (USB) standard~~[[,]] comprising:

a first step of constructing a virtual port in one line concentrator when another line concentrator is connected to a physical port provided to said one line concentrator and a bus device is connected to said [[other]] another line concentrator;

a second step of setting an operation as if said bus device is connected to the virtual port;

a third step of causing, in setting a bus connection by said host device, said one line concentrator to respond to communication associated with the setting of the bus connection from said host device to said bus device, to take a place of said bus device; and

a fourth step of setting the bus connection by communication with said one line

concentrator responsive to the response.

Claim 14 (Currently Amended): The method in accordance with claim 13, further comprising:

a fifth step of transferring, subsequently to said fourth step, data from said host device to said one line concentrator device;

a sixth step of detecting the transferred data by said one line concentrator and responding to said host device, upon detection of the transferred data, to take the place of said bus device; and

a seventh step of transferring the transferred data to said bus device by said one line concentrator.

Claim 15 (Original): The method in accordance with claim 13, wherein in said fourth step, said one line concentrator acts in deputy for said bus device in making the response, while performing a first processing of transferring data from said host device in the setting of the bus connection by control transfer and determining a form of transfer in terms of scheduling of said host device as a unit, a second processing of read-out transferring of the data based on said unit, and a third processing of write-in transferring of the data based on said unit.

Claim 16 (Original): The method in accordance with claim 14, wherein, in said fourth

step, said one line concentrator acts in deputy for said bus device in making the response, while performing a first processing of transferring data from said host device in the setting of the bus connection by control transfer and determining a form of transfer in terms of scheduling of said host device as a unit, a second processing of read-out transferring of the data based on said unit, and a third processing of write-in transferring of the data based on said unit.

Claim 17 (Currently Amended): The method in accordance with claim 14, wherein, in said sixth step, in response to detection of the transferred data by a connection device, the detected data are temporarily stored; and

in said seventh step, the stored data are transferred to said bus device of a ~~second~~ another network.

Claim 18 (Currently Amended): The method in accordance with claim 16, wherein, in said sixth step, in response to detection of the transferred data by a connection device, the detected data are temporarily stored; and

in said seventh step, the stored data are transferred to said bus device of a ~~second~~ another network.

Claim 19 (Currently Amended): The method in accordance with claim 17, wherein ~~[[the]]~~ a number of tiers of connection to said host device is equal to or more than seven

based on construction of the virtual port in said one line concentrator.

Claim 20 (Currently Amended): The method in accordance with claim 18, wherein
[[the]] a number of tiers of connection to said host device is equal to or more than seven
based on construction of the virtual port in said one line concentrator.

Claim 21 (Currently Amended): A method controlling communication over a network
system including a first network formed by a device satisfying a Universal Serial Bus-
On-The-Go (USB-OTG) standard, said device of the USB-OTG standard forming said
first network being a connection device, and a second network formed by connecting a
line concentrator, having a transferring and line-concentrating function and operating on
a USB standard, to a port of said connection device and by connecting a device of the
USB standard to a port of said line concentrator, said second network being connected
to said first network, said method comprising:

a first step of determining a state of connection and constructing a virtual port
distinct from a physical port actually provided to said connection device, subject to a
condition that said connection device is located simply as a device;

a second step of setting said device of the USB standard connected to [[a]] the
port of said line concentrator by a function of said connection device in setting an
operation as if said device of the USB standard is connected to the virtual port;

a third step of detecting data to be transferred to said device of the USB

standard by said connection device, transferring the data to said device of the USB standard responsive to the detection, and responding in proxy for said device of the USB standard; and

a fourth step of transferring ~~[[the]]~~ additional data from said connection device to said device of the USB standard subsequent to the response.

Claim 22 (Currently Amended): The method in accordance with claim 21, wherein said data transferred in said fourth step ~~[[are]]~~ is associated with bus connection setting.

Claim 23 (Original): The method in accordance with claim 21, wherein if said connection device is a slave, said third and fourth steps are executed, and if said connection device is a master, said third step is executed and said fourth step is omitted.

Claim 24 (Original): The method in accordance with claim 22, wherein if said connection device is a slave, said third and fourth steps are executed, and if said connection device is a master, said third step is executed and said fourth step is omitted.

Claim 25 (Currently Amended): The method in accordance with claim 21, further comprising:

a fifth step of transferring, subsequent to said fourth step, data from a device corresponding to a master of the first network to said device of the USB standard of the

second network;

a sixth step of detecting the transferred data by said connection device and making a response to the device corresponding to the master, responsive to the detection, in deputy for said device of the USB standard of the second network; and

a seventh step of transferring the transferred data from said connection device to said device of the USB standard of the second network subsequent to the [[proxy]] response in deputy.

Claim 26 (Currently Amended): The method in accordance with claim 22, further comprising:

a fifth step of transferring, subsequent to said fourth step, data from a device corresponding to a master of the first network to said device of the USB standard of the second network;

a sixth step of detecting the transferred data by said connection device and making a response to the device corresponding to the master, responsive to the detection, in deputy for said device of the USB standard of the second network; and

a seventh step of transferring the transferred data from said connection device to said device of the USB standard of the second network subsequent to the response in deputy.

Claim 27 (Currently Amended): The method in accordance with claim 23, further

comprising:

a fifth step of transferring, subsequent to said fourth step, data from a device corresponding to a master of the first network to said device of the USB standard of the second network;

a sixth step of detecting the transferred data by said connection device and making a response to the device corresponding to the master, responsive to the detection, in deputy for said device of the USB standard of the second network; and

a seventh step of transferring the transferred data from said connection device to said device of the USB standard of the second network subsequent to the response in deputy.

Claim 28 (Currently Amended): The method in accordance with claim 25, wherein in said sixth step, in response to detection of the transferred data by ~~[[a]]~~ said connection device, the detected data are temporarily stored; and

in said seventh step, the stored data are transferred to said ~~bus-device~~ line concentrator of the second network.

Claim 29 (Currently Amended): The method in accordance with claim 26, wherein in said sixth step, in response to detection of the transferred data by ~~[[a]]~~ said connection device, the detected data are temporarily stored; and

in said seventh step, the stored data are transferred to said ~~bus-device~~ line

concentrator of the second network.

Claim 30 (Currently Amended): The method in accordance with claim 27, wherein in said sixth step, in response to detection of the transferred data by ~~[[a]]~~ said connection device, the detected data are temporarily stored; and

in said seventh step, the stored data are transferred to said ~~bus device~~ line concentrator of the second network.

Claim 31 (Currently Amended): The method in accordance with claim 28, wherein when said connection device is a slave, ~~[[the]]~~ a number of tiers of connection by said line concentrator to ~~[[said]]~~ a host device in the first network is equal to or more than six.

Claim 32 (Currently Amended): The method in accordance with claim 29, wherein when said connection device is a slave, ~~[[the]]~~ a number of tiers of connection by said line concentrator to a ~~[[said]]~~ host device in the first network is equal to or more than six.

Claim 33 (Currently Amended): The method in accordance with claim 30, wherein when said connection device is a slave, ~~[[the]]~~ a number of tiers of connection by said line concentrator to a ~~[[said]]~~ host device in the first network is equal to or more than six.

Claim 34 (Currently Amended): The method in accordance with claim 28 ~~[[31]]~~, wherein

when said connection device is a slave, [[the]] a number of tiers of connection by said line concentrator to a [[said]] host device is set to five or more, based on construction and connection of the virtual port and a proxy response function; and

when said connection device is a master, the number of tiers of connection by said line concentrator to said host device is set to five or more, based on the construction and connection of the virtual port.

Claim 35 (Currently Amended): The method in accordance with claim 29 [[32]], wherein when said connection device is a slave, [[the]] a number of tiers of connection by said line concentrator to a [[said]] host device is set to five or more, based on construction and connection of the virtual port and a proxy response function; and

when said connection device is a master, the number of tiers of connection by said line concentrator to said host device is set to five or more, based on the construction and connection of the virtual port.

Claim 36 (Currently Amended): The method in accordance with claim 30 [[33]], wherein when said connection device is a slave, [[the]] a number of tiers of connection by said line concentrator to a [[said]] host device is set to five or more, based on construction and connection of the virtual port and a proxy response function; and

when said connection device is a master, the number of tiers of connection by said line concentrator to said host device is set to five or more, based on the

construction and connection of the virtual port.

Claim 37 (New): The method in accordance with claim 13, wherein the plurality of line concentrators are operated under a Universal Serial Bus (USB) standard.